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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Ex Parte Presentation in IB Docket No. 01-96


Dear Mr. Caton:

Pursuant to Section 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206, this letter serves as notice that on April 3, 2002, Gerald Helman of Virtual Geosatellite, LLC ("Virtual Geosatellite"), Stephen Baruch and undersigned counsel, met with the members of the International Bureau listed below.

Virtual Geosatellite's representatives presented the enclosed briefing regarding issues under consideration in the ongoing referenced proceeding.

The original and one copy of this letter are submitted for inclusion in the record of the referenced proceeding.

Sincerely,



Raul R. Rodriguez
Counsel to Virtual Geosatellite, LLC

RRR:rjc
Enclosure

cc (w/ encl. by e-mail): Mr. Donald Abelson
Mr. Thomas Tycz
Ms. Alexandra Field
Mr. Mark Young

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Virtual Geostationary Orbit:

Maximizing Opportunities for the Use of the Ku-Band for Present and Future NGSO FSS Systems

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Virtual Geo Initial Position:

- Option 4, Homogeneous Constellations, provides the best opportunity for:
 - Multiple entry of NGSO systems into Ku-band;
 - Ensuring full protection of GSO FSS and BSS networks; and
 - Maximizing the use and utility of the NGSO FSS spectrum at Ku-band.
- Option 3, Avoidance of In-Line Interference Events, is:
 - Unduly complex (requiring continuous and unprecedented levels of operator-to-operator interaction);
 - Consequently, a permanent burden on FCC resources;
 - Punitive to systems (e.g., HEO NGSO systems) that do not employ the mitigation technique of satellite diversity;
 - Forces substantial but unneeded costs in very harsh financial market; and
 - An inefficient user of the orbital/spectrum resource in that each heterogeneous system ties up roughly one-third of the available Ku-band spectrum worldwide.

SkyBridge Initial Position:

- Allow SkyBridge unfettered access to 1000 MHz of spectrum in each direction, exactly as it proposes, with no obligation on SkyBridge to adjust its parameters to facilitate intersystem sharing.

Virtual Geo Initial Proposal in IB Docket No. 01-96:

- Split all available bands roughly evenly between Virtual Geostationary Satellite Orbit (VGSO) systems on the one hand and SkyBridge and other in-line avoidance proponents on the other. All NGSOs can use VGSO spectrum, subject to the obligation to protect VGSO satellite arcs. Virtual Geo provided full details and proposed rules showing how the FCC would define and license VGSO systems.

SkyBridge Position in IB Docket No. 01-96 (February 2002):

- Adopt Option 3.
- Regardless of what Virtual Geo says, it can do satellite diversity.
- SkyBridge cannot survive with anything less than 1000 MHz of spectrum in each direction.

Virtual Geo Concerns with Skybridge's Unchanged Position:

- The mitigation technique of satellite diversity is not available to Virtual Geo or most other HEO systems.
- HEO-type NGSO systems are able to operate with a small fraction of the number of satellites that low Earth orbit NGSO systems use because HEOs do not need to use satellite diversity to share with GSO systems.
- If satellite diversity were to be required for Virtual Geo or other HEOs, the extra satellites, extra orbits, and infinitely more complicated ground segment that would be the inevitable consequences of such a requirement would defeat entirely the design and cost advantages associated with the innovative VGSO architecture.
- As for the amount of spectrum, SkyBridge has never provided any technical or economic justification whatsoever for its oft-stated requirement for access to 1000 MHz of Ku-band spectrum in each direction.

Virtual Geo Compromise Proposal for IB Docket No. 01-96 (February 2002):

- Adopt Option 3 with a tweak. Rather than leave NGSO systems to coordinate with each other on an ad hoc basis to resolve in-line interference situations, the Virtual Geo approach would, in effect, pre-coordinate VGSO systems by rule, as follows:
 - When there is an in-line event between a VGSO satellite and a non-VGSO satellite, the VGSO system defaults automatically to a fixed portion of the available spectrum and the non-VGSO system defaults to another portion of the band.

Virtual Geo Compromise Proposal for IB Docket No. 01-96 (February 2002):

(continued)

- This approach would apply whether there is one VGSO system (defined as per Virtual Geo's initial comments in IB Docket No. 01-96) or ten. As all VGSO satellites follow the same ground tracks, the avoidance obligation on any non-VGSO system would be the same in either case.
- All systems would be licensed to operate across all spectrum available for NGSO FSS use at Ku-band, subject to the limited avoidance obligation above.
- Option 3, as SkyBridge envisions it, would apply as between non-VGSO NGSO FSS systems whenever in-line events occur between them; in-line events would never occur as between VGSO systems due to the design of the constellations.

Advantages of Virtual Geo

Compromise Proposal:

- Preserves nearly all of what SkyBridge says it wants under Option 3.
- Creates the opportunities for optimization of the spectrum promised by the VGSO design.
- Provides opportunity for equitable access to Ku-band NGSO FSS spectrum by developing countries.
- Allows the marketplace, and not the regulators, prove the validity of Virtual Geo's claims of superiority of design, and does so in a way that allows SkyBridge and others to make their best cases as well.
- Radically improves the likelihood of global adoption of a spectrum assignment approach for Ku-band NGSO FSS systems.
- May provide a model for NGSO licensing in other bands.

Disadvantages of Virtual Geo Compromise Proposal:

- NONE